



NITE-TIMES NEWS

CHICAGO AREA TIMEX USERS GROUP

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NITE-TIMES INFO

The Nite-Times News is the newsletter of the Chicago Area Timex Users Group. It is available as a Public Domain feature of the Sinclair Survivalist BBS (312)473-9415. If you are not a CATUG member and desire to have a hard-copy mailed to your home, please provide \$6.00 per year to cover the cost of postage. For an annual fee of \$10.00 you can become a CATUG member with full membership privileges. The Chicago Area Timex Users Group is pleased to exchange newsletters with other Timex and Sinclair supporting users groups. If you desire to reprint any articles that appear here, please provide credit to the author and this newsletter. If you have any suggestions or would like to submit an article, you may upload it onto the Sinclair Survivalist BBS and leave a message about it with Sysop Gary or write to:

The Chicago Area Timex Users Group
Nite-Times News Editor
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Great Lakes, Illinois 60088.

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AUGUST C.A.T.U.G. MEETING

The Chicago Area Timex Users Group meets on the third saturday of each month in the Downers Grove Public Library's Conference Room, from 12:00 to 5:00. The next meeting will be on the 20th of August. The library is located at 1050 Curtiss Street in Downers Grove. The CATUG representative for this meeting is Steve Cooper and he can be contacted evenings at (312) 968-3553.

DIRECTIONS FROM THE NORTH: Take I-294 (Tri-State Tollway) south to I-88 (East West Tollway). Drive west on I-88 and exit at Highland Avenue. Take Highland south about three miles, during which it's name will change to Main Street. You will cross the Burlington-Northern tracks in downtown Downers Grove and turn right (west) at the next street (Burlington). Proceed one block to Forest Ave. At the intersection of Forest and Burlington is a public parking lot. The Library is located one block south of Burlington at the intersection of Curtiss and Forest. Please note that Burlington is a one-way street (westbound) and Curtiss is a one-way street (eastbound).

DIRECTIONS FROM THE SOUTH: Take I-55 (Stevenson Expway) to the Lemont Rd North exit. Take Lemont Road north about four miles during which it will merge into Main Street. As you go into downtown Downers Grove, you will pass Curtiss Street, and turn left at the next intersection (Burlington), which is the last street before you cross the railroad tracks. Proceed one block west to Forest Ave. At the intersection of Forest and Burlington is a public parking lot. The Library is located one block south of Burlington at the intersection of Curtiss and Forest. Please note that Burlington is a one-way street (westbound) and Curtiss is a one-way street (eastbound).

NITE-TIMES CLASSIFIEDS

The Nite-Times Classified Ads are a service provided to all of our readers. Please submit your ads prior to the 15th of each month. They may be mailed to the Nite-Times News or sent to Sysop Gary via the Feedback Message Base on the Sinclair Survivalist BBS (312) 473-9415

* * * * *
FOR SALE

Fully operational rebuilt TS-2068 computers for \$50.00 each. These machine come without cables, manual or powersupply. They include a thirty day warranty. For more information, contact:
Eric Johnson
249 N. Harden Avenue
Orange City, Florida 32763
(904) 775-4935

* * * * *
FOR SALE

AFFORDABLE HI-RES PLOTTING for the TS-2068 and Commodore 1520 four-color printer/plotter! The plotter can be found at Toys-R-Us stores for \$29.95. Interface hardware (from bareboard to assembled & tested) as well as utility software for screen to plotter praphic transfer, banner making, and word processing are available from:

John McMichael
1710 Palmer Drive
Laramie, WY 82070

A large SASE gets you more info and a sample plot.

* * * * *
FOR SALE

QL_FLIGHT (\$17), HOPPER (\$10), HYPERDRIVE (\$), CAVERNS 2 (\$10), and BLAST BUGGY (\$10). All five are available for 40.00 plus \$2.00 for shipping if you are out of town.

Al Feng
15 Wake Robin Ct,
Woodridge, IL

* * * * *
FOR SALE

\$65.00 TS2068 Computer
\$65.00 Gorilla/Banana Printer
\$20.00 TS2040 Printer
\$50.00 TS2050 Modem
\$15.00 Wico Trackball
\$35.00 Aerco Printer Interface
\$10.00 6E Cassette Recorder
\$60.00 Large collection of software and books.

For more information, call Gary Lessenberry at (312) 473-9415.

ON THE QL

By Butch Weinberg

Well here I am again with more information concerning my (and hopefully your) QL. This month I'd like to highlight the software library of the Quanta User Group. Ever since I received it, I have been diligently pouring through the Quanta library where I've been finding lots of interesting treasures. For those of you who use ARCHIVE, there are three QUILL document files (anote.1, anote.2, anoye.3) which give you generic eamples of how to do things with ARCHIVE such as how to add fields to you database (supposably, this can't be done, but it works!). There is also the PAGE DESIGNER program which is an earlier version of the commercial program by the same name. Although it is not as good as the commercial version, there are two programs that go with it. The first one is IMAGE LIFT EXTRACTOR which allows you to take colour graphics, decolour them, and then remove a segment of them to use in PAGE DESIGNER. The second program, IMAGE LIFT MANIPULATOR, takes the images that were removed by the first program and allows the user to rotate it and vary it's size. The Quanta Library has over 100 utility programs (many are similar), over 50 games (many are similar), graphics programs and much more! Some of these are public domain and I have added them to the CATUG QL Software Library.

Public Domain Software Documentation:

This month, as promised is a review of my Listing Program. The latest version of this program is disk based. Upon booting, you are prompted as to what medium the program that you want to list is stored on with several options (tape, disk, RAM or other) displayed. You select an option by pressing a single number. You will then be prompted for the program name and it will be merged for listing. Your target program will then be listed along with part of the Listibg Program so that you can see the last line number. It will then ask for the program name again in case the actual program name and the name you load by are different. I have found it helpfull if I put the name in quotes first. Next you will be prompted for the last line number so that you only list your program. YDu will also be prompted for the number of copies before printing. After printing is complete, you will have the option of loading and listing another program at the prompt. Next month, I will have documentation for pri_dir.

TIMEX TIDBITS

ZX-Appeal reports that Fred Nauchbaur is stepping down from the commercial side of the Timex Sinclair community. He does however, still intend to remain a strong supporter of the machines. (continued on page 3)

TIMEX TIDBITS

continued from page 2

The CATUG has received catalogs from the following dealers during the past month: Speedysoft (United Kingdom), Jack Dohany's Fairware, Sharp's Inc, The John Olinger Company, and A+ Computer Response. In the A+ catalog, QLs are being offered from \$75.00 (kit form) to \$89.00 (complete system).

Another reminder not to miss the summer events taking place for the Timex-Sinclair community. The GREAT NORTHWEST TIMEX/SINCLAIR MINI-FAIR will be held at the Cosmopolitan Hotel in Portland Oregon on August 6th and 7th. For more information, or write to THE GREAT NW TS MINI-FAIR, 1419 1/2 7th Street, Oregon City, Oregon 97045. Later in August, the Great Cleveland Sinclair Users Group will host the TIMES-SINCLAIR-AMSTRAD COMPUTER USERS 1988 MIDWEST REGIONAL CONFERENCE. It will take place at the Beck Center For The Arts in Lakewood, Ohio on August 26th and 27th. For more information write to the Greater Cleveland Sinclair Users Group, Glenbury Avenue, Lakewood, Ohio 44107.

David Hoshor in Cleveland has managed to write a Kermit protocol for the QL! Yes indeed! Very impressive. It operates as a stand-alone terminal program. And he said he got it operating at 2400 BPS with no problems.

Jay Seigle reports that there are still quite a few TS-2068s and TS1500s available from the Brooklyn Closeout Corp, Clymer St., Brooklyn, NY 11211, tel: 718/963-2377. He said that they do haggle their prices and advises that you call and push for your best price!

I just got a letter from John McMichael today where he says he has mated an Okimate 20 color printer with his TS2068 via his Commodore 1520 adapter board! The Okimate 20 is a color printer that can make 5-10 inch printouts on paper or transparencies. He says that he has software to allow for color or black & white screen dumps as well as allowing Okimate printouts from Mscript version 5.

One of our CATUG members, Jerry Cohler, has been the victim of a heart attack. Fortunately, the attack was not fatal. Jerry has been released from Presbyterian St Lukes hospital and he is enjoying a peacefull recovery at home. I behalf of the entire CATUG, I want to wish Jerry a speedy and complete recovery!

The Sinclair Northamerican User Group, (Snug), has the green light as is taking in names for membership when it begins. The main objective for the group will be to standardize a few of the mass storage media formats (probably with LKDOS) and technical support for all the sinclair and Timex computers. Also, a public domain software library will be available either by bbs or by disk, depending on the input from the members. They also hope to have listings of members close to you for local support. There will be special sub-sigs for each type of computer. If you need more info, or would like to be put on the list, please contact: Mel Nathanson, 7515 Arbordale Drive, Fort Richey, FL 34668, tel: (813) 863-5552.

Keith Sheehan is trying to get a Sinclair Sub-board going on the Cyclops BBS. All the SYSOP needs is 5 Sinclair enthusiasts in order to get one going. If you are interested, leave the SYSOP EMAIL on the Cyclops BBS telling him that you would be interested in the Sinclair-subboard. The Number for the Cyclops BBS is 839-5002.

News from Phoenix Pete: Well, as it turned out it was a good thing I didn't fly to Boston just to see Sir Clive speak to the Boston Computer Society...he didn't show up. Instead, he sent...can you guess??? Nigel Searle! Yes, it's true. Apparently Old Nigel tried to beat it out of there as soon as the presentation was over, but a contingent of the local sinclair enthusiast tracked him down and made him let them try out the computers....In other news, There's a new BBS on the Block, this one's in New Jersey, the Newark area and PC Pursuitable. The name is Passaic BBS, it has 90 Megs online and an EXTREMELY cooperative sysop. The number is (201) 471-6391 24 hrs. It has a T/S message base, and T/S download area.

TASMAN PRINTER INTERFACE POKES

Provided By Randy Kuhn

Here's a few pokes to use the tasman printer interface with mterm and Hot Z disassembler. First, have the basic loaders for the programs load the copy software into the printer buffer. (The version that starts at 23296)

For Mterm:

Poke 54445,0 54446,91

This will allow you to print out online when you hit Caps Shift and 8 and then hit P to print.

For Hot Z (High version):

Poke 51806,0 51807,205

51808,0 51809,91

51810,201

For Hot Z (Low version):

Poke 30303,0 30304,205

30305,0 30306,91

30307,201

SINCLAIR MIGRATION 1.01

By Anthony J. Oresteen

The purpose of this software is to convert Sinclair ZX-81/TS-1000 programs to ASCII files. The ZX-81 stores all of it's Basic files as TOKENIZED files and are unreadable by most other computers. Once the programs are converted to ASCII files, you can port the programs to any system that uses ASCII program files.

Please note that this program will NOT translate Sinclair BASIC to any other BASIC language. You will have to do that yourself. It's not hard but you should use an Editor like QVED/M to do global replace, search etc.

(continued on page 4)

SINCLAIR MIGRATION 1.01

continued from page 3

Assumptions:

1. It is assumed that you have an RS-232 adaptor for your ZX-81. The Memotech RS-232 is the one I used. The ZX-81 modem software is written for the Memotech device. You may have to modify the software if you are using a different device.
2. It is assumed that you have a communications program for the Macintosh and that you have hard-wired the ZX-81 directly to the Macintosh. I used Smartcom II and a home made cable.
3. It is assumed that your ZX-81 program does NOT contain Z-80 machine code embedded in a statement and that your program does not have a line numbers greater than 8999.
4. If your ZX-81 program has a line number 118, it will be translated as line 0 after line 117. You will have to change the line number after the program has been converted.

Using Sinclair Migration:

1. Connect the ZX-81 to the Mac with a direct cable.
2. You must add the following code to your ZX-81 program. If you are trying to port a program that is un-listable on the ZX-81 try this:

- A. Put the ZX-81 in FAST mode.
- B. TYPE RAND USR 836
- C. Start tape. Tape will load and give an error C
- D. Type LIST and there is the program!

Enter the following code to the ZX-81 program:

```

9000 THIS WILL MOVE PROGRAMS OUT VIA THE RS-232 PORT
9001 LET P$="00011010,00001000"
9002 RAND USR 10900
9003 LET T$=""
9004 FAST
9005 FOR N=16509 TO (PEEK 16396+256*PEEK 16397)
9006 IF PEEK N=118 THEN GOTO 9910
9007 LET T$=T$+STR$ PEEK N+","
9008 NEXT N
9009 GOTO 9915
9010 RAND USR 10895
9011 LET T$=CHR$ 118
9012 RAND USR 10895
9013 LET T$=""
9014 NEXT N
9015 SLOW

```

(NOTE: This is for the Memotech RS-232 Module !!!)

3. Start the file capture on the Mac. This is the INPUT file. Remember what you save it as. I use the following naming convention "program/TOKEN" so that I know it is a tokenized file.

4. Enter RUN 9000 on the ZX-81. The program will read a byte and send it out the RS-232 port. The Mac should receive data that looks something like this:

```

0,20,2,0,249,
0,30,14,0,233,63,13,16,31,30,126,134,0,0,0,0,17,
0,50,12,0,233,43,16,35,126,131,96,0,0,0,0,17,
0,55,12,0,233,59,16,35,126,131,96,0,0,0,0,17,
0,58,13,0,241,40,57,20,33,28,126,134,72,0,0,0,
0,60,17,0,233,38,13,16,40,57,26,29,28,126,132,32,0,0,0,17,
0,65,17,0,233,39,13,16,40,57,26,29,37,126,133,24,0,0,0,17,
etc.

```

(NOTE: Each number is a TOKENIZED value of ZX-81 BASIC.)
Sinclair Migration will convert these tokenized files to ASCII.
The converted file will look like this:

```

20 RAND
30 DIM Z$(32)
50 DIM F(7)
55 DIM V(7)
58 LET CT=50
60 DIM A$(CT,10)
65 DIM B$(CT,19)

```

etc.

(Note again that this is pure Sinclair ZX-81 Basic syntax.)

5. Once the ZX-81 program ends, finish saving the input file on the Mac.
6. Run Sinclair Migration on the Mac. Select Open from under the File menu. Select the file you just downloaded from the ZX-81 (Input File/Tokenized). Enter the name you want for the ASCII file. The program will default to add the extension of "ASCII" to the input file name. Select save and your file will be converted to ASCII. Note that the tokenized file is not changed; a new file is created with the ASCII text.
7. You now have an ASCII file of your ZX-81 Program. It is fairly easy to translate it to ZBasic syntax. This program was written in ZBasic and I recommend it.

Here's where to get the software mentioned:

1. ZBasic (Cost approx \$89.00)
ZEDCOR, Inc
4500 East Speedway, Suite 22
Tucson, AZ 85712-5305
tel: (800) 482-4567
2. Qued/M (Cost approx \$89.00)
Paragon Concepts Inc
4954 Sun Valley Road
Del Mar, CA 92014
tel: (619) 481-1477

I have enclosed the ZBasic source code for those who might want to write a similar program for a MS-DOS or CP/M system.

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SINCLAIR MIGRATION 1.01

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* * PROGRAM SOURCE CODE * *

```

REM *****
REM *
REM *   COPYRIGHT 1987 BY Anthony Oresteen
REM *   452 Orion Rd, Batavia, IL 60510 USA
REM *   tel: 312/879-5608
REM *
REM *   A Donation of $5.00 is asked if YOU keep
REM *   this program . Please send your tax de-
REM *   ductible donation to:
REM *       Holy Cross Parish
REM *       313 East Wilson ST
REM *       Batavia, IL 60510
REM *       USA
REM *
REM *****
REM THIS PROGRAM IS WRITTEN FOR THE ZBASIC COMPILER 4.0
REM SET OPTIONS AS FOLLOWS:
REM
REM DEFAULT VARIABLE TYPE SINGLE PRECISION
REM DEFAULT DATA TYPE 'TEXT'
REM SPACE REQUIRED AFTER KEYWORD
REM OPTIMIZE EXPRESIONS AS INTERGER
REM ALL OTHER OPTIONS OFF (BOXES NOT SELECTED)
REM =====
REM =      Last Change:   11 Nov 1987   10:30 PM   =
REM =====
REM ***** STANDARD MAC SETUP *****
CLS
FLUSHEVENTS
COORDINATE WINDOW
DEFMOUSE=1 : CALL SHOWPEN : TEXT ,,,0
WINDOW OFF
APPLE MENU "/About Sinclair"
MENU 1, 0, 1, "File"
MENU 1, 1, 1, "/Open"
MENU 1, 2, 1, "/Quit"
MENU 1, 3, 1, "/TTransfer"
MENU 1, 4, 1, "/Shutdown"
EDIT MENU 2
REM ----- OPENING WINDOW DISPLAY -----
WINDOW 1,"", (160,110)-(352,202),-2 : TEXT 0,12,0,0
PRINT% (30,16) "Sinclair Migration"
PRINT% (22,35) "© 1987 A. Oresteen"
PRINT% (27,55) "All Rights Reserved"
PRINT% (45,75) "Release 1.01"
REM -----
REM HERE WE LOAD THE SINCLAIR TOKENS
EM -----

```

```

DIM 10 TOKEN$(256)
FOR N = 0 TO 255
  READ TOKEN$(N)
NEXT N
LET TOKEN$(11) = CHR$(34) : REM PUTS QUOTES IN ARRAY; CAN'T DO
IT
WITH A READ STATEMENT!
DELAY 1000
WINDOW CLOSE 1
MENU ON : DIALOG ON : BREAK ON
ON BREAK GOSUB "QUIT"
ON MENU GOSUB "MENUCHOICE"
ON DIALOG GOSUB "GETEVENT"
REM *** HERE WE ARE WAITING FOR SOMETHING TO HAPPEN *****
"GLOBALPAUSE"
REM *****
REM THIS IS THE MAIN EVENT LOOP. IT TRAPS ALL EVENTS (DIALOG
etc. )
REM *****
GOTO "GLOBALPAUSE"
MENU OFF : BREAK OFF : DIALOG OFF
"GETEVENT"
WHAT = DIALOG (0)
IF WHAT = 1 THEN GOSUB "BUTTON"
RETURN
REM * NOW WE BRANCH TO THE WINDOW WHERE THE EVENT TOOK PLACE *
"BUTTON"
WHERE = WINDOW (0)
IF WHERE = 5 THEN GOSUB "WSBUTTON"
RETURN
REM -----
REM ***** END OF EVENT LOOP *****
REM -----
REM *****
REM HERE WE TRAP THE MENU SELECTIONS !
REM *****
"MENUCHOICE"
MENU
LET LASTWIN = WINDOW (0)
M1=MENU(0): M2=MENU(1)
IF M1=255 THEN GOSUB "ABOUT"
IF M1 = 1 THEN GOSUB "FILE"
RETURN
"FILE"
IF M2= 1 THEN GOSUB "OPEN"
IF M2= 2 THEN GOSUB "QUIT"
IF M2= 3 THEN GOSUB "LAUNCH"
IF M2= 4 THEN GOSUB "CRASH"
RETURN
"OPEN"
REM ----- GET INPUT FILE -----
NAMES$ = FILES$ (1,"TEXT",,VOL%) : IF NAMES$ = "" THEN RETURN
(continued on page 6)

```

SINCLAIR MIGRATION 1.01

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```

OPEN "I",1,NAMES$, 1000, VOL% : Z$ = NAMES$+".ASCII"
REM ----- GET OUTPUT FILE -----
NAME2$ = FILES$(0,"Save ZX-81 Program as",Z$,VOL2%)
IF NAME2$="" THEN CLOSE #1 : RETURN
OPEN "O",2, NAME2$,VOL2%
REM ----- HERE WE CONVERT THE INPUT FILE -----
WINDOW 2,"Sinclair Migration",(20,50)-(492,200), 261
TEXT 4,12,0,0 : LINECOUNT=1
PRINT: PRINT "Converting Sinclair ZX-81 Program: ";NAME$;" TO
ASCII"
PRINT : PRINT "Lines Converted: " : CURSOR=4
"GETDATA"
INPUT #1,T,S,U,V : LNUM= T*256+S: LENGTH=U+256*V
IF LNUM = 9000 THEN GOTO "END"
TEMP$=STR$(LNUM)+" " : TEMP%=RIGHT$(TEMP$,LEN(TEMP$)-1 ): REM
REMOVES SIGN BYTE
N=1 : NUM = 0 :PRINT #2, TEMP$ ;
FOR N = 1 TO LENGTH-1
INPUT#1,XX :
IF XX = 126 THEN NUM =1
IF NUM = 0 THEN TEMP$=TOKEN$(XX) : PRINT #2, TEMP$;
IF NUM =1 THEN INPUT#1,A,A,A,A,A : N= N+5 : NUM = 0
NEXT N
PRINT #2, CHR$(13);
PRINT % (120,57); LINECOUNT : LINECOUNT=LINECOUNT+1
INPUT#1,XX
GOTO "GETDATA"
"END"
CLOSE 1 : CLOSE 2 : CURSOR=0 : PRINT : PRINT "DONE!" : BEEP
DELAY 4000 : WINDOW CLOSE #2
RETURN
REM ***** Begin Quit Menu *****
"QUIT"
REM ---- HERE WE EXIT. SHOULD CLOSE & POST FILES FIRST! ----
END
REM ----- End of Quit Menu -----
REM ***** Begin Transfer Menu *****
"LAUNCH"
LASTWIN = WINDOW (0)
Current$= FILES$ (1,"APPL",VOL%)
IF Current$ = "" THEN RETURN
CLOSE
RUN Current$,VOL%
RETURN
REM ----- End of Transfer Menu -----
REM ***** Begin Shutdown Menu *****
"CRASH"
REM ----- SHOULD POST DATA TO FILES & CLOSE FIRST !!!!-----
CLOSE
SHUTDOWN

```

```
REM ----- End of Shutdown Menu -----  
REM ***** The About Menu *****  
"ABOUT"  
WINDOW #5, , (60,50)-(450,320),-2 : TEXT 6, 18, 0,  
PRINT% (60,20) "Sinclair ZX-81 Migration"  
TEXT 0, 12, 0,  
PRINT% (100,40) "Version 1.01 (10 Nov 87)"  
PRINT% (100,60) "-1987 Anthony Oresteen"  
PRINT% (100,80) "All Rights Reserved"  
PRINT% (10,120) " Shareware fee $5.00"  
PRINT% (10,140) " Please send your fee to:  
PRINT% (40,165) " Holy Cross Parish"  
PRINT% (40,185) " 313 East Wilson St"  
PRINT% (40,205) " Batavia, IL 60510"  
PRINT% (40,225) " USA"  
TEXT 4,9,0, :  
PRINT% (297,259) "ZBasic 4.00"  
BUTTON #11,1,"Thanks!",(285,200)-(370,220),1  
RETURN  
"W5BUTTON"  
WINDOW CLOSE #5  
RETURN  
REM ----- END of About Menu -----  
REM -----  
REM HERE ARE THE SINCLAIR TOKENS  
REM -----  
  
DATA " ", "R", "R", "R", "R", "R", "R", "R", "R", "R", "R", "  
DATA "$$, "?" "(" ">" "<","=  
DATA "+","-", "*","/", ";", ",", ".", "0", "1", "2", "3", "4", "5", "6",  
"7", "8", "9"  
DATA A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S,T,U,V,W,X,Y,Z  
DATA " RND ", " INKEY$ ", " PI ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ",  
" ", " ", " ", " "  
DATA " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ",  
" ", " ", " ", " ", " "  
DATA " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ",  
" ", " ", " ", " ", " "  
DATA " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ",  
" ", " ", " ", " ", " "  
DATA " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ", " ",  
"$", ":", "?", "(" ">",  
"<","=  
DATA "+","-", "*","/", ";", ",", "."  
DATA "0", "1", "2", "3", "4", "5", "6", "7", "8", "9", a,b,c,d,e,f,g,h,  
i,j,k,l,m,n  
DATA o,p,q,r,s,t,u,v,w,x,y,z," "," AT ", " TAB ", " ", " CODE ",  
" VAL ", " LEN "  
DATA " SIN ", " COS ", " TAN ", " ASN ", " ACS ", " ATN ", " LN ",  
" EXP ", " INT "  
DATA " SQR ", " SGN ", " ABS ", " PEEK ", " USR ", " STR$ ", " CHR$ "  
" NOT "  
DATA **, " OR ", " AND ", " <=", " >=", " <> ", " THEN ", " TO ",  
" STEP ", " LPRINT "  
(continued on page 7)
```

SINCLAIR MIGRATION 1.01

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```
DATA " LLIST "," STOP "," SLOW "," FAST "," NEW "," SCROLL ","
" CONT "," DIM "
DATA " REM "," FOR "," GOTO "," GOSUB "," INPUT "," LOAD ","
" LIST "," LET "
DATA " PAUSE "," NEXT "," POKE "," PRINT "," PLOT "," RUN ","
" SAVE "," RAND "
DATA " IF "," CLS "," UNPLOT "," CLEAR "," RETURN "," COPY "
```

If you have any questions write to me (enclose a SASE):

Anthony J. Oresteen
452 Orion Rd
Batavia, IL 60510

USING THE TS-2068 JOYSTICK PORTS WITH ART STUDIO

This is the second of two modifications that we are making to Art Studio. Last month, we removed that annoying LENSLOK protection from our loader program. This month, we will modify the machine code so that we can control our Art Studio cursor with both keyboard and joysticks that are plugged into the TS-2068 joystick ports. It is important to note that although you will be using the 2068 joystick ports, you still must be in spectrum mode to use Art Studio.

The keys that I have chosen for cursor movement and action initiation (FIRE) are listed below. These keys are built into the machine code and can only be changed by rewriting the code.

FUNCTION	KEY
Up	7
Down	6
Left	5
Right	8
Fire	ENTER

The joystick works normally, it can be plugged into either joystick port or separate joysticks can be plugged into each port at the same time.

Type this code in using HOT Z (while operating in 2068 mode). SAVE "scan" CODE 41059,121 on a spare tape or disk. The new code will replace the existing code used with the Interface 2 and Kempston joysticks.

The way to insert this code into Art Studio machine code is simple:

```
LOAD Art Studio machine code (in Spectrum mode)
LOAD the "scan" code on top of it.
POKE 31999,1
SAVE the revised code.
```

If you have made a tape with the BASIC loader program, studio1" (from last month's article) on it, followed

immediately by the normal Art Studio "studio_mc", then you can proceed as follows:

MERGE "studio1".

Stop the tape as soon as "studio1" has loaded.

Add the following lines of BASIC:

142 LOAD "studio_mc"

144 POKE 31999,1

146 STOP

RUN

Restart the tape to load "studio_mc".

Rewind the tape and remove.

Insert the tape containing "scan" and play.

Remove lines 142, 144, and 146

GOTO 1025 to SAVE and VERIFY the revised code.

***** PROGRAM LISTING *****

ADDR	HEXCODE	LABEL	MNEMONIC
A063	3EF7	KYB0	LD A,F7
A065	DBFE		IN A,(FE)
A067	47		LD B,A
A068	3EBF		LD A,BF
A06A	DBFE		IN A,(FE)
A06C	4F		LD C,A
A06D	3EEF		LD A,EF
A06F	DBFE		IN A,(FE)
A071	57		LD D,A
A072	AF		XOR A
A073	CB5A		BIT 3,D
A075	2002		JR NZ,A079
A077	F604		OR 04
A079	CB62		BIT 4,D
A07B	2002		JR NZ,A07F
A07D	F608		OR 08
A07F	CB60		BIT 4,B
A081	2002		JR NZ,A085
A083	F602		OR 02
A085	CB52		BIT 2,D
A087	2002		JR NZ,A08B
A089	F601		OR 01
A08B	CB41		BIT 0,C
A08D	2002		JR NZ,A091
A08F	F610		OR 10
A091	B7		OR A
A092	2029		JR NZ,LOAD
A094	3E0E	JSTK	LD A,0E
A096	D3F5		OUT (F5),A
A098	01F603		LD BC,03F6
A09B	ED78		IN A,(C)
A09D	47		LD B,A
A09E	AF		XOR A
A09F	CB78		BIT 7,B

(continued on page 8)

USING THE TS-2068 JOYSTICK PORTS WITH ART STUDIO

continued from page 7

A0A1	2002	JR NZ,A0A5
A0A3	F610	OR 10
A0A5	CB40	BIT 0,B
A0A7	2002	JR NZ,A0AB
A0A9	F604	OR 04
A0AB	CB48	BIT 1,B
A0AD	2002	JR NZ,A0B1
A0AF	F698	OR 08
A0B1	CB50	BIT 2,B
A0B3	2002	JR NZ,A0B7
A0B5	F602	OR 02
A0B7	CB58	BIT 3,B
A0B9	2002	JR NZ,LOAD
A0BB	F601	OR 01
A0BD	320FAC	LD (ACDF), A
A0C0	C9	RET
A0C1	00	NOP
A0C2	00	NOP
A0C3	00	NOP
A0C4	00	NOP
A0C5	00	NOP
A0C6	00	NOP
A0C7	00	NOP
A0C8	00	NOP
A0C9	00	NOP
A0CA	00	NOP
A0CB	00	NOP
A0CC	00	NOP
A0CD	00	NOP
A0CE	00	NOP
A0CF	00	NOP
A0D0	00	NOP
A0D1	00	NOP
A0D2	00	NOP
A0D3	00	NOP
A0D4	00	NOP
A0D5	00	NOP
A0D6	00	NOP
A0D7	00	NOP
A0D8	00	NOP
A0D9	00	NOP
A0DA	00	NOP
A0DB	00	NOP

TIMEX/SINCLAIR BBS DIRECTORY (JULY 1988)

BULLETIN BOARD	NUMBER	NOTES	RATES
T.S.U.G	(201) 956-7703	8 L D @	15/14
YOUR AVERAGE REMOTE BBS	(213) 327-9424	8 L D @	17/15
GREY MATTER BBS	(213) 971-6260	8 M D @	17/15
STARTEXT.	(214) 877-1041	8 M \$	16/15
FWKUG MBBS.	(214) 540-4183	8 D @	16/15
TIMELINES BBS	(216) 671-6922	8 H D %	15/14
CLEVELAND FREE-NET BBS.	(216) 368-3888	7 L @	15/14
KINGS MARKET BBS.	(303) 665-6091	8 M D @	16/15
SINCLAIR SURVIVALIST BBS.	(312) 473-9415	8 L D % @	-----
ASTRAL PLANE BBS.	(312) 476-7785	8 L D @	-----
PEOPLE-LINK	(800) 826-8855	8 L D \$	-----
COMPUERVE.	(312) 443-1250	7 H D \$	-----
SERIAL PORT BBS	(313) 286-0145	8 H D	15/13
ACCESS*LINE*BBS	(317) 841-7072	8 M D	14/12
P.D.S.E.	(415) 571-6911	8 M D @	16/14
R.M.G. BBS.	(503) 656-8072	8 H @ %	17/15
JJ'S FIDO	(505) 522-7081	8 L D	17/15
TIMEWARP BBS (PW=GORT).	(515) 282-4169	8 M D	15/13
CITYLINK TOWER.	(604) 222-2000	8 H	16/14
NICHOLSON NIGHTIME NETWORK.	(604) 354-4666	8 H D	32/27
OWEGO FREE ACADEMY BBS.	(607) 754-3420	8 L D	16/
TCCS (PW=clive").	(607) 785-2118	8 L D	16/15
THE TIMEWARP BBS.	(617) 481-0555	7 L D @	16/15
FLEXI BBS	(617) 648-7651	8 L @	16/15
FLASH! BBS.	(702) 644-6910	8 M D	16/14
NIGHT BYTE BBS.	(718) 627-1293	8 L D %	15/14
MICROLINK BBS	(718) 648-3502	8 L D	15/14
THE BUS DEPOT BBS	(904) 262-6761	8 L D	16/15

TIMEX BBS DIRECTORY LEGEND

7 PARAMETERS = 7/E/1	8 PARAMETERS = 8/N/1
D TIMEX FILE TRANSFERS	L LOW USAGE T/S MSG BASE
M MEDIUM USAGE T/S MSG BASE	H HIGH USAGE T/S MSG BASE
\$ SUBSCRIPTION REQUIRED	% OPERATION DURING EVENINGS
@ ACCESSIBLE VIA PC PURSUIT	? DOWN UNTIL FURTHER NOTICE

RATES ARE THE CHARGES FROM CHICAGO FOR THE FIRST MINUTE & EACH FOLLOWING MINUTE AFTER 11:00 PM AND ON WEEKENDS.

CATUG LIBRARY NOTES

By Gary Lessenberry

The Chicago Area Timex Users Group Library has received the following listed articles from other user groups via our newsletter exchange. The newsletters with these articles will be available for check out at the monthly CATUG meetings.

1. CATS Newsletter (June 1988)
24K Internal NVM (TS1000 Hardware Proj)
2. SLUG Newsletter (June 1988)
Tasword-2050/RS-232 Modification
Printer Programming
3. I.S.T.U.G. Newsletter (May 1988)
Spectrum Repairs
2068 Graphics Exercise (Prog)
4. HATS Newsletter (June 1988)
5. WCUC User Amuser (June 1988)
Bit/S n PC's
6. FDD Express (July 1988)
7. The Hacker (June 1988)
Computer Virus Hits Sinclair Family
TI 99/4A Graphics Conversion For T/S 2068
Checkbooker (TS2068 Prog)
8. PACC Talk (June 1988)
Timex Sinclair Names In The News
9. Timelinez (June 1988)
QL User Defined Graphics
10. ZX-Appeal (June 1988)
RLE Graphics Guide
Four Stroke Engine (TS2068 Prog)
Playing With Electricity

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(July 1, 1988)

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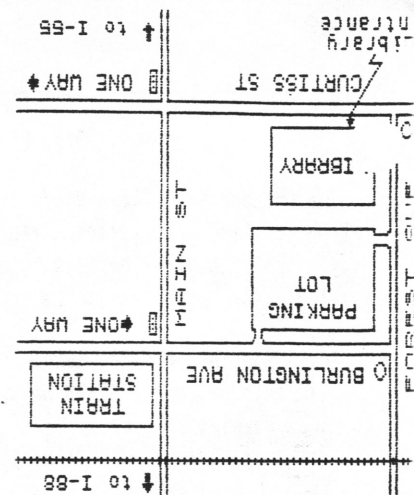
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